

REMARKS/ARGUMENTS

Claims 1, 4-7 and 9-12 are pending in this application, with claim 1 being the only independent claim. Reconsideration of the above-identified application, in view of the following remarks, is respectfully requested.

Claims 1, 6, 7, and 9 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 3,954,257 (Keijzer) in view of U.S. Patent No. 2,458,157 (Funkhouser).

Claims 4, 5, 11, and 12 stand rejected under 35 U.S.C. §103 as being unpatentable over Keijzer and Funkhouser and further in view of U.S. Patent No. 5,267,725 (Wode).

Claim 10 stands rejected under 35 U.S.C. §103 as being unpatentable over Keijzer and Funkhouser and further in view of OE 324144

Independent claim 1 recites “a bellows covering said section of said piston rod for protecting said section of said piston rod against at least one of dirt and damage, wherein an unimpeded flow connection is provided in the end of said piston rod, said flow connection comprising a transverse bore leading to the interior space of said bellows and a longitudinal bore proceeding from said transverse bore and opening outside of said bearing on said distal side of said bearing, said flow connection being permanently open and communicating freely only with an interior space defined in said bellows and with the atmosphere such that said flow connection allows a free flow of air between the atmosphere and said interior space when said interior space in said bellows undergoes a change in volume in response to a relative movement between the bearing and the cylinder”.

Neither Keijzer, Funkhouser, nor the combination thereof discloses, teaches, or suggests a connection between an interior space of a bellows and the atmosphere which includes a bore “opening outside of said bearing on said distal side of said bearing”. Only the present

application discloses the benefit of locating an opening to the atmosphere to the distal side of the bearing.

Keijzer discloses a suspension strut having a rolling diaphragm member 78 which forms a volume with a dirt shield 96 which is adapted to be pressurized to compensate for vehicle loading and supplement the action of the coil spring 68 of a strut (see col. 3, line 65 to col. 4, line 2 of Keijzer). The volume is connected to a source of fluid pressure by a conduit 120 (see col. 4, lines 15-23). In one embodiment shown in Fig. 4 of Keijzer, the conduit 120 is connected to the volume through a bore 112 and cross bore 114 (see col. 4, lines 2-10).

Since the volume of the rolling diaphragm member 78 of Keijzer is required to hold pressure to compensate for load of the vehicle, Keijzer fails to disclose "a free flow of air between the atmosphere and said interior space when said interior space in said bellows undergoes a change in volume in response to a relative movement between the bearing and the cylinder", as expressly recited in independent claim 1.

Funkhouser discloses a piston cylinder unit comprising a cylinder 20 and a tubular piston rod 30 connected to a piston 50. A free end of the piston rod 30 which projects out of the piston 20 is connected to a closure member 33 with a lug 34 having an opening 35 as a mounting member (see col. 2, lines 4-10 of Funkhouser). Funkhouser discloses that the end of a hollow piston rod 30 is received in a blind hole in the lug 34. The lug 34 has a further bore 36 which connects the blind hole with the atmosphere (col. 2, lines 10-13). A fluid tight bellows 41 is arranged between a collar 40 on the cylinder 20 and a collar 31 at the free end of the piston rod 30. The piston 50 divides the cylinder into a lower working chamber 72 and an upper working chamber 75 (see col. 3, lines 37-46). The piston 50 includes valves which selectively connect the lower working chamber 72 to a fluid reservoir 100 in the in the piston rod 30 (col. 4, lines 59-64). Orifices

in the tubular piston rod 30 provide communication between the interior of the bellows and the interior of the piston rod, i.e., the fluid reservoir 100.

Since the piston rod opens inside of the lug 34 and is connected to the atmosphere through the bore 36, Funkhouser fails to disclose “said flow connection comprising a transverse bore leading to the interior space of said bellows and a longitudinal bore proceeding from said transverse bore and opening outside of said bearing on said distal side of said bearing”, as expressly recited in independent claim 1. Furthermore, since the fluid reservoir 100 of Funkhouser is also connected to the lower chamber 72 through the valve of the piston 50, Funkhouser also fails to disclose, teach or suggest “said flow connection being permanently open and communicating freely only with an interior space defined in said bellows and with the atmosphere”, as expressly recited in independent claim 1.

Accordingly, neither Keijzer nor Funkhouser discloses “said flow connection being permanently open and communicating freely *only* with an interior space defined in said bellows and with the atmosphere” (emphasis added), as expressly recited in independent claim 1. In contrast, Keijzer discloses that the interior space is connected to a pressurized fluid source and Funkhouser discloses that the fluid reservoir 100 of Funkhouser is also connected to the lower chamber 72 through the valve of the piston 50.

Furthermore, the combination of Keijzer and Funkhouser fails to teach or suggest an atmospheric opening on a distal side of the bearing. Rather Keijzer discloses that the bore 112 is connected to a conduit which is in communication with a pressurized fluid source. In contrast, Funkhouser teaches that the opening to the atmosphere is not on the distal side of the bearing. There is no reason or suggestion in the combined teachings of Keijzer and Funkhouser for incurring the expense and effort for routing an atmospheric opening to the distal side of the bearing. Only the

present invention teaches the claimed configuration so that clear air from outside of the wheel well is used to fill the bellows.

In view of the above amendments and remarks, independent claim 1 is allowable over Keijzer in view of Funkhouser.

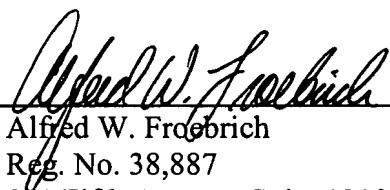
Dependent claims 4-7 and 9-12, are allowable for the same reasons as is independent claim 1, as well as for the additional recitations contained therein.

In view of the above amendments and remarks, the application is deemed to be in condition for allowance and notice to that effect is solicited.

Should the Examiner have any comments, questions, suggestions, or objections, the Examiner is respectfully requested to telephone the undersigned in order to facilitate reaching a resolution of any outstanding issues.

Respectfully submitted,
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